

**REMARKS**

The present Response does not amend, add, or cancel any claims.

Accordingly, claims 1-5, 7, 8, 10-12, 14-17, and 19-24 remain pending in the application. Claims 1, 4, 10, 15, and 24 are independent.

In the Office Action of February 7, 2008, claim 24 was rejected under 35 USC §102(a) and (e) as being anticipated by International Application No. WO 02/073245 to Zhai et al. ("Zhai"). This rejection is respectfully traversed.

The Examiner's indication that the remaining claims are allowed is noted with appreciation.

The Office Action indicated that the previously submitted Information Disclosure Statement did not include the International Search Report. Accordingly, Applicants have attached a copy of the Search Report to the instant Response.

In rejecting independent claim 24, the Office Action alleges that Zhai discloses a rotating modulator that varies wavefronts of light and comprises a surface which is processing in a radial form so that its sectional view varies in height in a near sinusoidal fashion. Applicants respectfully disagree.

Independent claim 24 defines a rotating modulator which varies the wavefronts of light. The modulator comprises a surface that is processed in a radial form so that its sectional view varies in height in nearly sinusoidal fashion. As discussed in the Specification, the rotating modulator is optically polished in a radial form so that the surface of a section varies in height, as illustrated in Figs. 9A and 9B. See paragraph [0057] of the published application. Furthermore, the length of a period of the rotating modulator is controlled by its rotational speed. Accordingly, it is possible to obtain almost uniform illumination which does not depend on spatial

frequencies, while preventing interference fringes from occurring. See paragraph [0058].

Applicants' review of Zhai has not revealed any disclosure or suggestion for such features. In particular, Zhai explicitly indicates that the incoherence apparatus (56) includes a completely random, non-periodic structure that has a rough surface with random bumps of random size and thickness. Clearly, this structure cannot be construed as varying in height in a nearly sinusoidal fashion. Furthermore, Zhai indicates that the phase of the input light is modified so that the output light has a wavefront having a random phase. See page 4, line 33 to page 5, line 9. In contrast, the rotating modulator of independent claim 24 produces an almost completely uniform illumination which does not depend on the spatial frequencies. Accordingly, the incoherence apparatus of Zhai is completely different in both structure and function from the rotating modulator of independent claim 24.

It is therefore respectfully submitted that independent claim 24 is allowable over the art of record.

For the reasons stated above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a Notice of Allowance is believed in order, and courteously solicited.

If the Examiner believes that there are any matters which can be resolved by way of either a personal or telephone interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

**AUTHORIZATION**

Applicants request any shortage or excess in fees in connection with the filing of this paper, including extension of time fees, and for which no other form of payment is offered, be charged or credited to Deposit Account No. 01-2135 (Case: 500.44257X00).

Respectfully submitted,  
ANTONELLI, TERRY, STOUT & KRAUS, LLP.

  
\_\_\_\_\_  
/Leonid D. Thenor/  
Leonid D. Thenor  
Registration No. 39,397

LDT/vvr  
1300 N. Seventeenth Street  
Suite 1800  
Arlington, Virginia 22209  
Tel: 703-312-6600  
Fax: 703-312-6666

Dated: May 7, 2008

Attachment: International Search Report (2 pages)

INTERNATIONAL SEARCH REPORT		International application No. PCT/JP03/08399
<b>A. CLASSIFICATION OF SUBJECT MATTER</b> Int.Cl <sup>7</sup> H01L21/027, G03F7/20, G02B19/00, G02B3/00		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) Int.Cl <sup>7</sup> H01L21/027		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2003 Kokai Jitsuyo Shinan Koho 1971-2003 Toroku Jitsuyo Shinan Koho 1994-2003		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2001-085308 A (Nikon Corp.), 30 March, 2001 (30.03.01), Full text; particularly, Par. Nos. [0007], [0012], [0015], [0029], [0053] to [0059], [0069] (Family: none)	1,3,7-10,12, 15,17,22,23 2,4,5,11,13, 14,16,18,19 6,20,21
X	JP 05-045605 A (Asahi Optical Co., Ltd.), 26 February, 1993 (26.02.93), Full text; particularly, Fig. 3 (Family: none)	1,2,4,8-11, 13,15,16,18
Y	JP 2000-223408 A (Hitachi, Ltd.), 11 August, 2000 (11.08.00), Par. Nos. [0042] to [0047], [0062] to [0063]; Figs. 1, 6 (Family: none)	5,14,19
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed		
Date of the actual completion of the international search 14 October, 2003 (14.10.03)	Date of mailing of the international search report 28 October, 2003 (28.10.03)	
Name and mailing address of the ISA/ Japanese Patent Office	Authorized officer	
Facsimile No.	Telephone No.	

Form PCT/ISA/210 (second sheet) (July 1998)

## INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/08399

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 08-330212 A (Nikon Corp.), 13 December, 1996 (13.12.96), Par. Nos. [0005], [0013] to [0016] (Family: none)	2, 4, 11, 13, 16, 18 6, 20, 21
A		
E, A	JP 2003-270585 A (Ricoh Co., Ltd.), 25 September, 2003 (25.09.03), Par. No. [0020]; Figs. 2, 3, 5 (Family: none)	6, 20, 21

Form PCT/ISA/210 (continuation of second sheet) (July 1998)